

## CLAIMS

1. A loudspeaker comprising:
  - a hollow frame having opening sections at its upper side and lower side;
  - 5 a hat-shaped yoke whose both ends are supported by an inner wall of the frame;
  - a ring-shaped first magnet being coupled with a lower surface of an outer periphery of the yoke;
  - 10 a columnar second magnet being coupled with an inner bottom of a middle section of the yoke;
  - a ring-shaped first plate being coupled with a lower surface of the first magnet;
  - a plate-type second plate being coupled with an upper surface of the second magnet;
  - 15 a first diaphragm whose outer periphery is fixed to a lower opening of the frame;
  - a second diaphragm whose outer periphery is fixed to an upper opening of the frame;
  - a ring-shaped first voice coil whose one end is fixed to the first diaphragm
  - 20 and other end is placed at a first magnetic gap formed between an inner peripheral surface of the first plate and an outer peripheral surface of the middle section of the yoke; and
  - a second voice coil whose one end is fixed to the second diaphragm and other end is placed at a second magnetic gap formed between an inner peripheral surface of the second plate and an inner peripheral surface of the middle section of the yoke,
  - 25 wherein the frame is integrated with the yoke in assembling the frame.

2. A loudspeaker comprising:
  - a hollow frame having opening sections at its upper side and lower side;
  - a hat-shaped yoke whose both ends are supported by an inner wall of the
- 5 frame;
  - a ring-shaped first magnet being coupled with a lower surface of an outer periphery of the yoke;
  - a columnar second magnet being coupled with an inner bottom of a middle section of the yoke;
- 10 a ring-shaped first plate being coupled with a lower surface of the first magnet;
  - a plate-type second plate being coupled with an upper surface of the second magnet;
  - a first diaphragm whose outer periphery is fixed to a lower opening of the
- 15 frame;
  - a second diaphragm whose outer periphery is fixed to an upper opening of the frame;
  - a ring-shaped first voice coil whose one end is fixed to the first diaphragm and other end is placed at a first magnetic gap formed between an inner peripheral surface of the first plate and an outer peripheral surface of the
- 20 middle section of the yoke; and
  - a second voice coil whose one end is fixed to the second diaphragm and other end is placed at a second magnetic gap formed between an inner peripheral surface of the second plate and an inner peripheral surface of the
- 25 middle section of the yoke,
  - wherein the frame is integrated with an outer peripheral part of a connected-component which is formed by coupling the yoke with the first

magnet and the first plate.

3. The loudspeaker of claim 1 or 2,  
wherein at least one of an upper surface of the yoke and a lower surface  
5 thereof is integrated as a reference plane in mounting for a mold of the frame.